Ministry of Northern Development and Mines

Ontario

Mines and Minerals Division

GEOLOGICAL DATA INVENTORY FOLIO

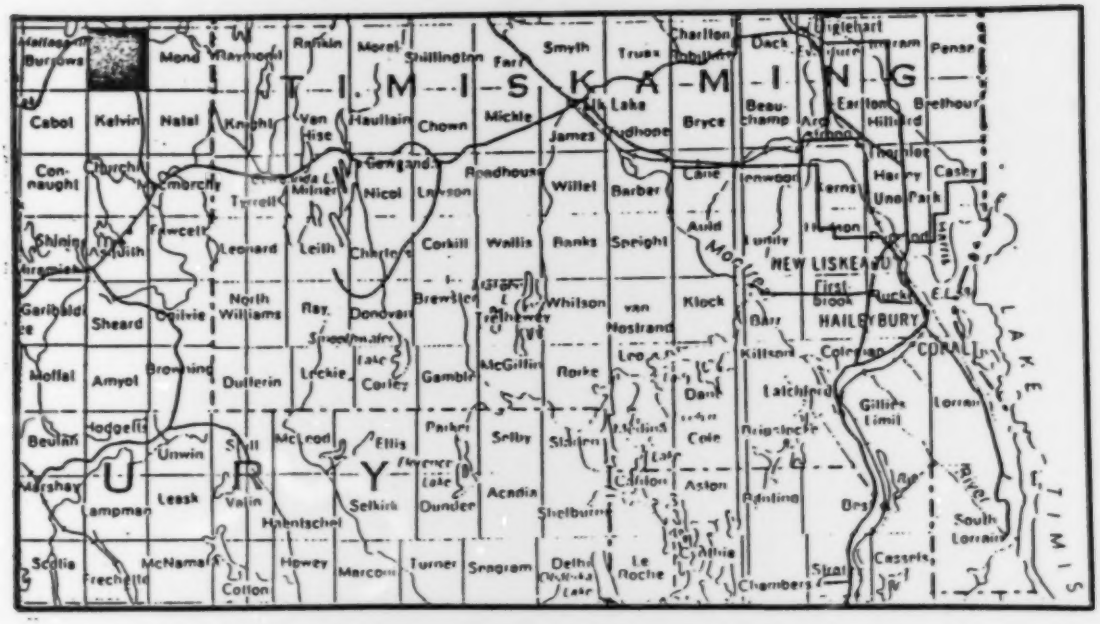
GDIF 549

KEMP TOWNSHIP

LARDER LAKE MINING DIVISION

NTS No. 41P/14

Compiled by the staff of
the Resident Geologist's Office
COBALT



LOCATION MAP

CANADA ONTARIO
Mineral Development
Exploitation Minerale

This project is part of the five year Canada–Ontario 1985 Mineral Development Agreement (COMDA), a subsidiary agreement to the Economic and Regional Development Agreement (ERDA) signed by the governments of Canada and Ontario.

90-04569/

Mining Claim Map Number M-996

This project was funded under the Canada Ontario Mineral Development Agreement (COMDA), 1985-1990.

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey 1990. Kemp Township, Geological Data Inventory Folio 549 ; compiled by the staff of the Resident Geologist's Office, Cobalt.

Original Compilation by: Anderson, Patricia, January 1990.

Date	Page(s) Revised	Revised by

Date	Page(s) Revised	Revised by

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ACCOMPANYING MAPS (see map legends on outside back cover).

A. Files Index Map (s) ..... Map A-1

B. Exploration Data Map (s) ..... Map B-1

ABBREVIATIONS LIST

A.F.R.O.	Assessment Files Research Office (Toronto)
Ann. Rept. (A.R.)	Annual Report
A.R.I.P	Aggregate Resources Inventory Paper
Bull	Bulletin
C.I.M.M.	Canadian Institute of Mining and Metallurgy
C.J.E.S.	Canadian Journal of Earth Sciences
C.M.J.	Canadian Mining Journal
Econ. Geol.	Economic Geology
E.M.R.	Department of Energy, Mines and Resources
E.P.B.	Earth Physics Branch
G.A.C.	Geological Association of Canada
GC	Geological Circular
GDIF	Geological Data Inventory Folio
Geol.	Geology
Geol. Soc. Amer. Bull.	Geological Society of American Bulletin
GR	Geoscience (Geological) Report
GSC	Geological Survey of Canada
I.L.S.G.	Institute on Lake Superior Geology
IMR	Industrial Mineral Report
I.O.C.	Report of the Iron Ore Committee (1923)
Jour. (or J)	Journal
MDC	Mineral Deposit Circular
M.D.I. (R)	Mineral Deposit Inventory (Record)
Mem	Memoir
MNDM	Ministry of Northern Development and Mines
MNR	Ministry of Natural Resources
MP	Miscellaneous Paper
MRC	Mineral Resources Circular
N.M.I.	National Mineral Inventory
NOEGTS	Northern Ontario Engineering Geology Terrain Study
NTS	National Topographic System
O.B.M.	Ontario Bureau of Mines
O.D.L.F.	Ontario Department of Lands and Forests
ODM	Ontario Department of Mines/Ontario Division of Mines
ODMNA	Ontario Department of Mines and Northern Affairs
OFR	Open File Report
OGS	Ontario Geological Survey
P.R.	Preliminary Report
Prelim. (or P)	Preliminary
R.C.	Royal Commission on Mineral Resources of Ontario (1890)
S.M.D.R.	Source Mineral Deposit Record
SOEGTS	Southern Ontario Engineering Geology Terrain Study
Sum. Rept.	Summary Report

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no': if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	D.P.A.
2	Assessment Files Research Office, Toronto	Yes	D.P.A.
3	OGS/ODM General Index	Yes	D.P.A.
4	Catalogue of Airborne Geophysical Surveys (ODM)	N.A.	D.P.A.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	No	D.P.A.
6	ODM Industrial Mineral Reports	No	D.P.A.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	D.P.A.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	No	D.P.A.
9	Newspaper Clippings File	No	D.P.A.
10	GSC Index to Publications	Yes	D.P.A.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	D.P.A.
12	OGS Index Maps	Yes	D.P.A.
13	Source Mineral Deposit Records (OGS)	No	D.P.A.
14	Author - Subject Articles File	No	D.P.A.
15	ODM/OGS Miscellaneous Papers	Yes	D.P.A.
16	ODM Geological Circulars	No	D.P.A.
17	OGS Study Series	No	D.P.A.
18	ODM Preliminary Reports	No	D.P.A.
19	ODM Bulletins	Yes	D.P.A.
20	ODM/OGS Open File Reports	Yes	D.P.A.
21	OGS Northern/Southern Ontario Engineering Geology Terrain Studies	Yes	D.P.A.
22	OGS Aggregate Resources Inventory Papers	N.A.	D.P.A.
23	OGS Mineral Potential Maps	No	D.P.A.
24	Drill Core Library Catalogue	No	D.P.A.
25	Theses on File, Cobalt	No	D.P.A.
26	Aerial Photographs on File, Cobalt	Yes	D.P.A.
*			

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MINERAL COMMODITIES REFERENCE LIST

anh	Anhydrite
ank	Ankerite
ap	Apatite
arg	Argentite
As	Arsenic
asp	Arsenopyrite
asb	Asbestos
ba	Barite
be	Beryl
Bi	Bismuth
bn	Bornite
Cd	Cadmium
calc	Calcite
carb	Carbonate
cc	Chalcocite
cp	Chalcopyrite
ch	Chert
clay	Clay
Co	Cobalt
cob	Cobaltite
Cu	Copper
cor	Corundum
dol	Dolomite
ep	Epidote
fel	Feldspar
fl	Fluorite (flurospar)
fu	Fuchsite
gn	Galena
gt	Garnet
goe	Goethite
Au	Gold
gf	Graphite
gl	Gravel
gyp	Gypsum
hem	Hematite
Fe	Iron
IF	Iron Formation
jas	Jasper
ky	Kyanite
Pb	Lead
lim	Limonite
Li	Lithium
mgst	Magnesite
mag	Magnetite
mc	Malachite
Mn	Manganese
mb	Marble
mar	Marcasite
ma	Marl
mi	Mica
mo	Molybdenite
Mo	Molybdenum
mon	Monazite
ne	Nephelite (nepheline)
Ni	Nickel
Nb	Niobium
Pd	Palladium
pent	Pentlandite
Pt	Platinum
py	Pyrite
pyl	Pyrochlore
po	Pyrrhotite
q	Quartz
qcv	Quartz carbonate vein
ra	Radioactive minerals
RE	Rare Earths
sd	Sand
sgl	Sand and gravel
ss	Sandstone
scap	Scapolite
shee	Scheelite
serp	Serpentine
sh	Shale
sid	Siderite
si	Silica
Ag	Silver
sl	Slate
sm	Smaltite
sod	Sodalite
spec	Specularite
sp	Sphalerite
spd	Spodumene
s	Sulphides
talc	Talc
Te	Tellurium
th	Thorite
Th	Thorium
ti	Titanite
Ti	Titanium
tour	Tourmaline
W	Tungsten
uran	Uraninite
U	Uranium
verm	Vermiculite
Zn	Zinc
zr	Zircon

ADDITIONS

*

▲ Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

MINERAL OCCURRENCES

Ref. Letter on Map	(see Exploration Data Map) Name(s)	Mineralization	REFERENCES IN SMDR-Source Mineral Deposit Record MDC-Mineral Deposits Circular, OGS IMR-Industrial Mineral Report, OGS MDI-Mineral Deposit Inventory NMI-National Mineral Inventory	Additional References and/or Remarks

MINERAL OCCURRENCES

Ref Letter on Map	(see Exploration Data Map) Name(s)	Mineralization	REFERENCES IN SMDR-Source Mineral Deposit Record MDC-Mineral Deposits Circular, OGS IMR-Industrial Mineral Report, OGS MDI-Mineral Deposit Inventory NMI-National Mineral Inventory	Additional References and/or Remarks

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TYPE OF WORK (see Files Index Map) EXPLORATION FILES		Numbers below represent the year in which the work was done: e.g., 68 for 1968																OTHER DATA IN THIS FILE, OR FOOTNOTES
Ref No on Map	COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETIC	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETIC	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY	
1	Newmont Exploration of Canada Ltd. and Du Pont of Canada Exploration Ltd., Sirola-Karvinen Option, Burrows and Kemp Tps. AFRO #2.4647 2.5150 2.5902 2.5147 2.5144 2.5145	82	82	83		83		83 82				82	82 82 81	82	82			
2	Texas Gulf Sulphur Co. Inc., AFRO #2.1015							72				72	72					
3	Conwest Exploration Co. Ltd., Sothman and Kemp Tps.								51			51						
4	Consolidated Mining & Smelting Co. of Canada Ltd., Highway Group				65													

SEE PAGE 14-1...NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

TYPE OF WORK (see Files Index Map) EXPLORATION FILES		Numbers below represent the year in which the work was done; e.g., 68 for 1968																OTHER DATA IN THIS FILE, OR FOOTNOTES
Ref No. on Map	COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETIC	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETIC	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY	
5	Hudson Bay Oil and Gas Mining Ltd., Kelvin and Kemp Tps., Rat-Tail Lake Group				75	75		76					?					
6	Paymaster Consolidated Mines Ltd., Burrows and Kemp Tps. also Kelvin, McArthur, Bartlett, Geikie, English Tps.	57						58 57		57		57	57					
7	Norcen Energy Resources Ltd., Mona, Kemp, Midlothian, Raymond, Halliday and Sothman Tps. AFRO #2.4274							81	81	81								

SEE PAGE 14-1...NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

DRILLHOLE SUMMARY

Drilling Location Number on Map	(see Exploration Data Map) Company Name (file number)	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden FEET	Total Length of Hole FEET	Mineralization Noted in Log	Assay Data Included for
1	Consolidated Mining & Smelting Co. of Canada Ltd.	HG1a	1965	290	-45	26	35	gf,py	
		HG1b	1965	290	-51	28	240	gf,py	
2	Hudson Bay Oil & Gas Mining Ltd.	SS-75-1	1975	160	-45	10	297	py,gf	Au,Ag,Cu, Zn,Pb,Ni, Co

● —— indicates core stored at Drill Core Library

DRILLHOLE SUMMARY

Drilling Location Number on Map	(see Exploration Data Map) Company Name (file number)	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden FEET	Total Length of Hole FEET	Mineralization Noted in Log	Assay Data Included for

● —— indicates core stored at Drill Core Library

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AIRBORNE GEOPHYSICAL SURVEY DATA

Number on File Index Map(s)	— by — for — year	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing
3	For: Conwest Exploration Co. Ltd., 1951 Survey reported in assessment work but no details given	Magnetometer			
6	By: Aerophysics of Canada Ltd. For: Paymaster Consolidated Mines Ltd. Year: 1957	Electromagnetic	?	E/W	1/8 mile
7	By: Scintrex Ltd. For: Norcen Energy Resources Ltd. Year: 1981	Helicopter magnetic (Scintrex Map-4) and electromagnetic (Scintrex HEM-802)	30m	N/S	125m and 250m

AIRBORNE GEOPHYSICAL SURVEY DATA

Number on File Index Map(s)	— by — for — year	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing

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GEOCHEMICAL SURVEY DATA

(see Exploration Data Map)

Map Sample Site Reference Number	Type of Survey	Analysis For	By	Reference
1	Overburden sampling - basal till	Heavy media separation	Overburden Drilling Management Ltd. and Bell-White Laboratory Ltd.	Burrows Tp. AF: Newmont Exploration of Canada Ltd., File #2

Map Sample Site Reference Number	GEOCHEMICAL SURVEY DATA (see Exploration Data Map)		By	Reference
	Type of Survey	Analysis For		

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Site No. on Map	GEOCHRONOLOGY DATA – AGE DATING			
	Method	Material	Reference	Result

AERIAL PHOTOS; MOSAICS; IMAGERY

The following items are available for inspection at the Resident Geologists Office:

(a) Aerial Photographs: 1" = 1/4 mile, black and white, 1970, 1980

(b) Photomosaics:

(c) Satellite Imagery:

TOPOGRAPHIC MAPS (selected)

scale	year	name and/or number	by
1:20 000	1982	OBM 20 17 4700 52800 20 17 4800 52800 20 17 4700 52900 20 17 4800 52900	EMR
1:50 000	1976	Sinclair Lake, Ontario, NTS 41P/14	Surveys & Mapping Branch, EMR

NEWSPAPER CLIPPINGS FILE (selected)

PAPER	DATE	PAGE	"ARTICLE HEADLINE" OR COMPANY AND/OR SUBJECT

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OGS/ODM GENERAL INDEX SEARCH

Words Searched:

CONSOLIDATED MINING & SMELTING CO. OF CANADA LTD.
CONWEST EXPLORATION CO. LTD.
DU PONT OF CANADA EXPLORATION LTD.
GRASSY RIVER
HUDSON BAY OIL & GAS MINING LTD.
KARVINEN
KEMP TP.
MARNE CREEK
MARNE LAKE
NEWHART EXPLORATION OF CANADA LTD.
NORCEN ENERGY RESOURCES LTD.
PAYMASTER CONSOLIDATED MINES LTD.
RAT-TAIL LAKE
SIROLA GOLD MINES LTD.
TEXAS GULF SULPHUR CO. LTD.
UPPER GRASSY LAKE

Index Volume	Listing	Report Volume	Part	Page
1	Consolidated Mining & Smelting Co.			
	Capital and date of charter	16	1	31
		6	2	176
	Cobalt ores bought by	18	1	13
	Experiments by, on zinc extraction	25	2	50
2	Grassy River, Mattagami River			
	Character	35	6	4,59, 64
	Esker, photo	35	6	77
	Photo	35	6	64,78
	Pine, photo	35	6	77
	Rocks	35	6	62
	Grassy River Area, Sud.			
	Report with map by T.L. Gledhill	35	6	57-82
	Kemp Tp., Sud.			
	Map. See map 35j with	35	6	
	Rocks, structure	35	6	80
	Marne Creek and Lake, Grassy River			
	Keewatin rocks. See map 35j with	35	6	

OGS/ODM GENERAL INDEX SEARCH

Words Searched:

Index Volume	Listing		Report Volume	Part	Page
3	Consolidated Mining & Smelting Co. of Canada Ltd.				
	Capital; officers; operations:	(1927)	37	1	94
		(1928)	38	1	93-95
		(1934)	44	1	85
		(1935)	45	1	95-97
		(1936)	46	1	117-119
		(1937)	47	1	106-108
		(1938)	48	1	16,98-100
		(1939)	49	1	103-105
	Grassy River, Mattagami r.				
	Character; fault, photo		47	4	3
	Gold claims near		47	4	20,21
	Rocks. See map 47d with		47	4	
4	Paymaster Consolidated Mines Ltd.				
	Capital; officers; operations:	(1940)	50	1	107-110
		(1941)	51	1	172-175
		(1942)	52	1	167-170
		(1943)	53	1	146-149
		(1944)	54	2	77-80
		(1945)	55	2	64,65
		(1946)	56	2	73-75
		(1947)	57	2	75-77
		(1948)	58	2	63-65
		(1949)	59	2	61-63

OGS/ODM GENERAL INDEX SEARCH

Words Searched:

Index Volume	Listing	Report Volume	Part	Page
4	Paymaster Consolidated Mines Ltd. continued			
	Dividends (to 1949)	59	1	12,15
	Historical note	58	1	Table III
	Profit tax. See Profit tax annual reports			
5	Conwest Exploration Co. Ltd.			
	Claims Sothman Tp.	62	6	24,25
	Kemp Tp., Sud.			
	Mining claims	62	6	27
	Paymaster Consolidated Mines Ltd.			
	Agreement with Buffalo Ankerite	60	2	9
	Capital; officers; operations: (1950)	60	2	60
	(1951)	61	2	61-63
	(1952)	62	2	64-66
	(1953)	63	2	73-76
	(1954)	64	2	67-71
	Dividends (to 1949)	64	1	30,36
	Sirola Gold Mines Ltd.			
	Claims Sothman tp.	62	2	24
	report on	62	2	36

OGS/ODM GENERAL INDEX SEARCH

Words Searched:

Index Volume	Listing		Report Volume	Part	Page
6	Paymaster Consolidated Mines Ltd.				
	Capital; officers; operations:	(1955)	65	2	69-72
		(1956)	66	2	70-73
		(1957)	67	2	75-78
		(1958)	68	2	52
		(1959)	69	2	51-53
	Dividends (to 1956)		66	1	15
	Texas Gulf Sulphur Co.				
	Licensed		67	1	34
7	No Listings Found				
8	Conwest Exploration Co. Ltd.				
	Midlothian Tp., Timiskaming District		GR79		28
9	No Listings Found				

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Alcock, P.W.	1987	Quaternary Geology of the Shining Tree Area, Districts of Sudbury and Timiskaming; in Summary of Field Work and Other Activities by the OGS	OGS MP 137	p. 374-376
Collins, W.H.	1909	Preliminary Report on the Gowganda Mining Division, District of Nipissing, Ontario	GSC Separate Report 1075 GSC Map 1076	1:63 360
Collins, W.H.	1914	The Geology of the Gowganda Mining Division	GSC Memoir 33 GSC Memoir 64A	1:63 360
Geological Survey of Canada	1957	Aeromagnetic Map Sinclair Lake, Ontario	GSC Map 286G	1:63 360
Geological Survey of Canada	1988	Gravity-Bouguer Anomalies, Sudbury, Ontario and Quebec	GSC Map ML-17-GR(BA)	1:1 000 000
Ginn, R.M.	1964	Timmins-Kirkland Lake Sheet, Cochrane, Sudbury and Temiskaming Districts, Ontario, Geological Compilation Series	ODM Map 2046	1:253 440
Gupta, V.K.	1981	Bouguer Gravity and Generalized Geological Map of Gogama-Gowganda Area, NTS 41P, Timiskaming and Sudbury Districts, Ontario	OGS Map P.2481	1:100 000
Hornbrook, E.H.W., Friske, P.W.B.	1988	Regional Lake Sediment and Water Geochemical Reconnaissance Data, Gogama Area, Ontario	GSC OFR 1640	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Hunter and Assoc. Ltd.	1984	Peat and Peatland Evaluation of the New Liskeard Area, NTS 31M/12 and 41P/E, Timiskaming + 2 other Districts, Ontario	OGS OFR 5486	3 volumes
Jolly, W.T.	1978	Metamorphic History of the Archean Abitibi Belt	GSC Paper 78-10	pp. 63-78
Kretschmar, U., Kretschmar, D.	1980	Talc, Magnesite and Asbestos Deposits in the Kirkland Lake-Timmins Area, NTS 31M, 32D, 41O, 41P, 42A, 42B, Timiskaming + 2AL Districts	OGS OFR 5310	
Kutina, Jan & Fabbri, Andrea	1971	Relationship of Structural Lineaments and Mineral Occurrences in the Abitibi Area of the Canadian Shield	GSC Paper 71-9	36 p.
Legun, A.	1984	Huronian Stratigraphy and Sedimentation in the Cobalt Area, NTS 31M/W and 41P, Ontario	OGS OFR 5508	
Long, D.G.F., Leslie, C.A.	1986	The Placer Gold Potential of the Early Aphebian Gowganda Formation along the Northern Margin of the Cobalt Embayment, Ontario with Comments on Associated Concentrations of Silver and Copper	OGS OFR 5608	
Ontario Geological Survey	1979	Airborne Gamma-Ray Spectrometry Maps and Profiles	OGS Geoph-Geoch Maps 80372-80410	1:250 000
Parks, W.A.	1907	The Geology of a District from Lake Timiskaming Northward	GSC Summary Report 1904 Vol. XVI, Part A	pp. 198-225

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Pyke, D.R., Ayres, L.D., Innes, D.G.	1973	Timmins-Kirkland Lake Geological Compilation Series, Cochrane, Sudbury and Timiskaming Districts, Ontario	ODM Map 2205	1:253 440
Redman, J.D., Strangway, D.W.	1986	Ontario Geoscience Research Grant Program, Grant No. 118, Surface Electromagnetic Mapping in Northern Ontario	OGS OFR 5615	
Reid, J.A.	1943	Mineral Resources of the Timiskaming Silver-Cobalt Area, Ontario	ODM Bulletin No. 134	
Roed, M.A., Hallett, D.R.	1980	Gogama Area, NTS 41P/NW, Timiskaming and Sudbury Districts, Ontario	NOEGTS 82	1:100 000
Roed, M.A., Hallet, D.R.	1980	NOEGTS Data Base Map, Gogama, NTS 41P/NW, Timiskaming and Sudbury Districts	OGS Map 5019	1:100 000
Symons, D.T.A., Stupavsky, M.	1983	Grant No. 143: Analysis of Aeromagnetic Anomalies over Algoman-type Iron Formations	OGS OFR 5476	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages

Note No.	NOTES
	The exploration data map shows only the most important minerals found at each site. All the minerals noted are listed in the mineral occurrences or the drill hole data. On the maps, only the areas for which work has been submitted to the Ministry are shown and thus a company may hold, or have held in the past, more ground than is shown. No present or past producers.

ADDENDA

CONVERSION FACTORS

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	25.4	mm
1 cm	0.393 70	inches	1 inch	2.54	cm
1 m	3.280 84	feet	1 foot	0.304 8	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	1.609 344	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	6.451 6	cm^2
1 m^2	10.763 9	square feet	1 square foot	0.092 903 04	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 02	cubic inches	1 cubic inch	16.387 064	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	4.546 090	L
		MASS			
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

***Note:** Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in cooperation with the Coal Association of Canada.*

For further information please contact:

Resident Geologist's Office
Box 230, Presley St.,
Cobalt, Ontario
P0J-1C0
(705)679-8558

MAP LEGENDS

A. FILES INDEX MAP

FILE AREAS See pages 4-1,2 .... of text

- ■ Reference number is always inside work area outlined. See listing in text pages.
- ☐ Small area of exploration data
- ☐ File covers whole township or area
- ☐

B. EXPLORATION DATA MAP

MINERAL OCCURRENCES: See pages 3-1,2__ of text

- ☐ Mineral occurrence at surface, with reference letter
- ☐ Mineral occurrence with shaft, depth given with reference letter
- ☐ Mineral occurrence reported but exact location uncertain, with reference letter
- ☐ Mineralized float with reference letter
- ☐ Mineral occurrence encountered in drilling, with reference letter
- ☐

DRILLHOLES: See pages 5-1,2__ of text

- ■ Location of single drillhole, with reference number
- ☐ Location of group of closely spaced drillholes, with reference number
- ☐ Drillhole, exact location uncertain, with reference number
- ☐ Property with underground drillholes in this general area, with reference number
- ☐ Property with drillholes which have not been plotted on map, with reference number
- ☐ Reverse circulation drillhole; churn drilling, with reference number
- ☐

GEOCHEMICAL: See pages 7-1,2....of text

- ☐ Geochemical sample site, with reference number
- ■ Area of geochemical sampling, with reference number
- ☐

GEOPHYSICAL ANOMALIES

Airborne Surveys: See pages 6-1,2.... of text

- ☐ AM — Airborne magnetic anomaly
- ☐ Airborne electromagnetic anomaly Length of anomaly along flight line
- ☐ Airborne electromagnetic anomaly Location of anomaly along flight line
- ■ Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ☐ AEM — Airborne electromagnetic anomaly Conductor axis: Location of flight lines uncertain
- ☐ ARA — Airborne radiometric anomaly

Ground Surveys

- ■ M — Ground magnetic anomaly
- ■ VL — Ground electromagnetic anomaly (VL - Vertical loop, HL - Horizontal loop VLF - Very low freq., Turam; JEM - Crone Em - 16)
- ☐ RA — Ground radiometric anomaly
- ☐ IP — Induced polarization anomaly
- ☐ SP — Self potential anomaly
- ☐ AFMAG — Audio-frequency magnetic anomaly (total intensity)
- ☐ R — Resistivity anomaly
- ☐ GR — Gravity anomaly
- ☐

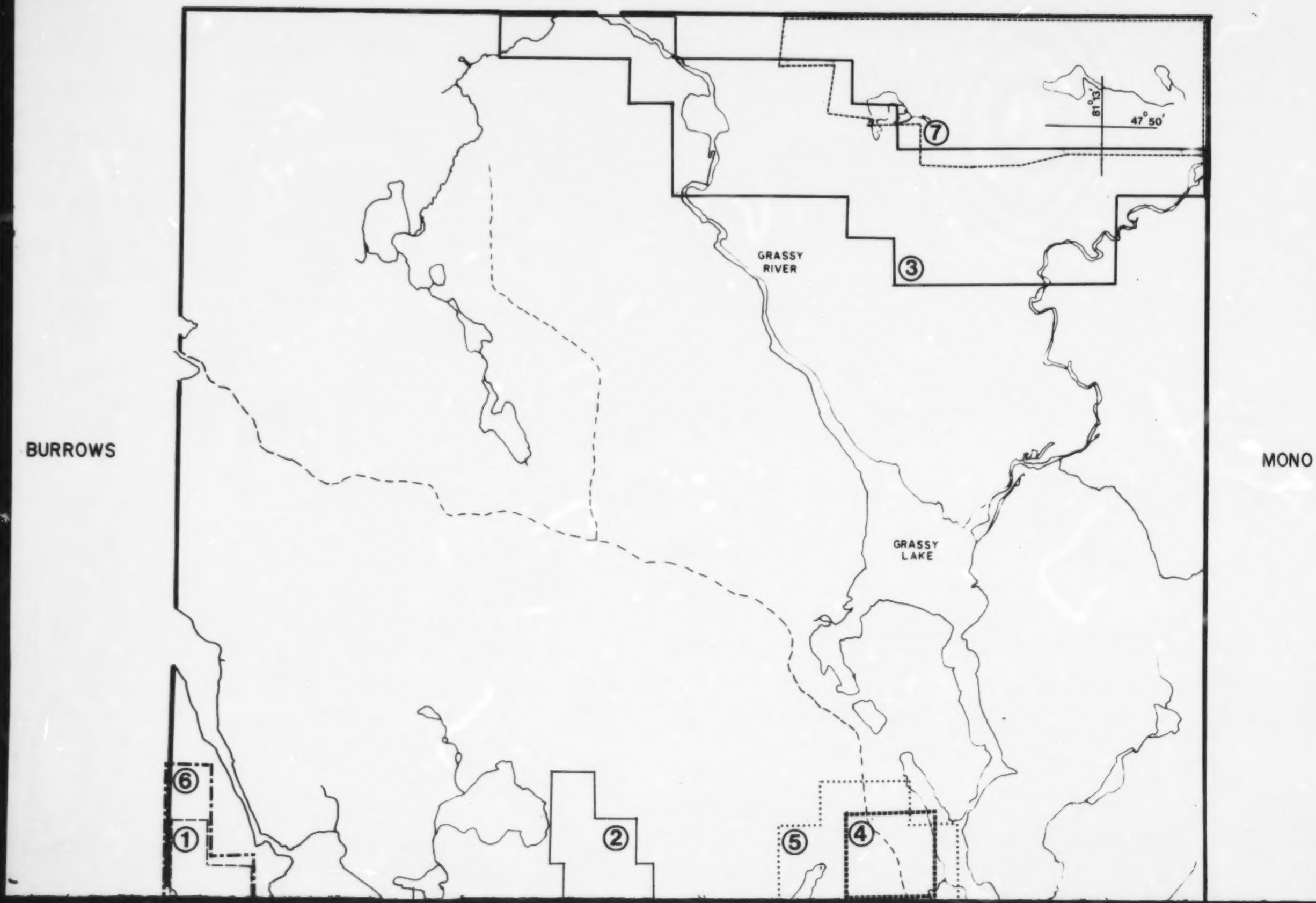
GEOCHRONOLOGICAL DATA: See page 8 of text

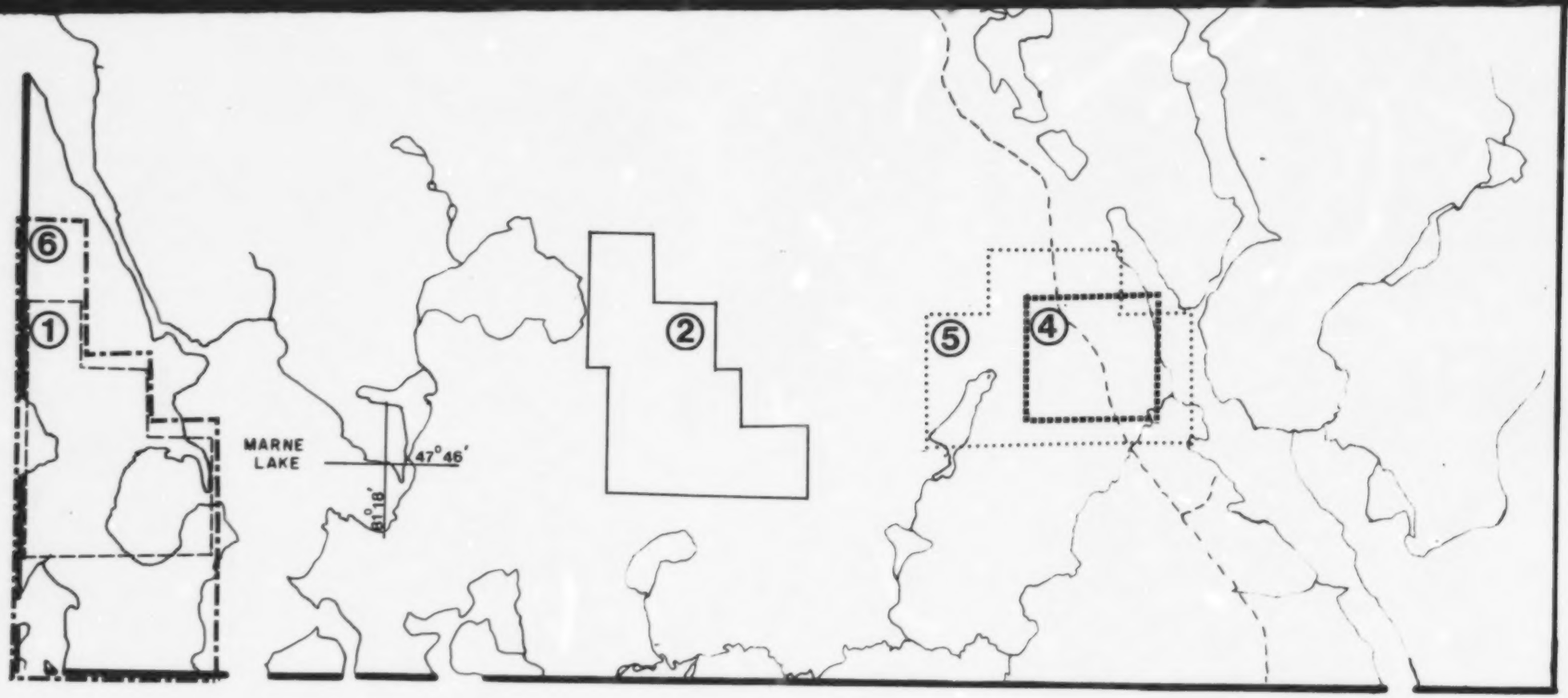
- ☐ Age dating material sampling site, with reference number
- ☐

MISCELLANEOUS DATA

- ☐ Trenching, pit
- ☐ Adit
- ☐ Sand and/or gravel pit
- ☐
- ☐ Rock quarry
- ☐ Open pit
- ☐

SOTHMAN





KELVIN

Ministry of
Northern Development
and Mines

Mines and
Minerals
Division

Ontario

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

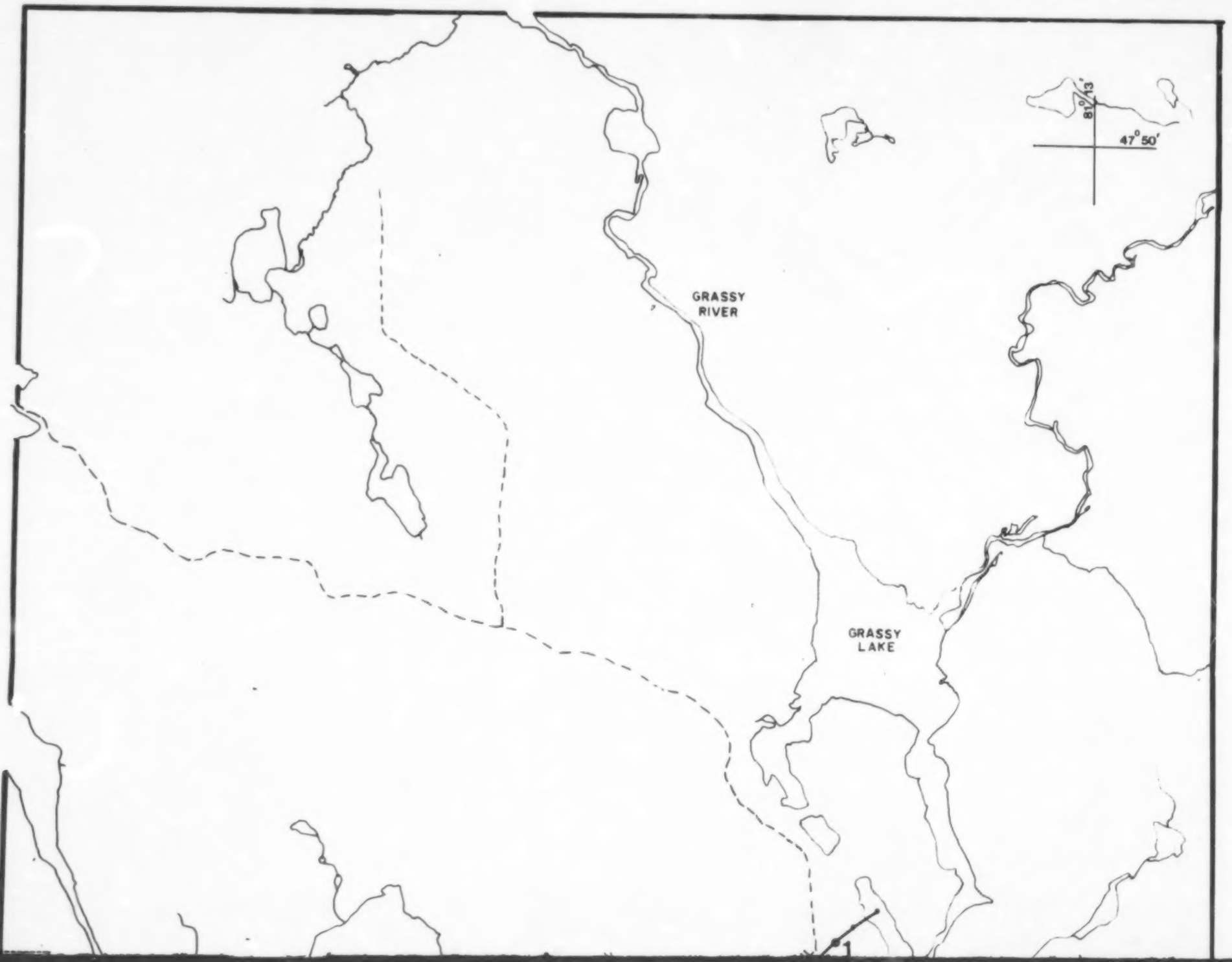
GEOLOGICAL DATA INVENTORY FOLIO 549

KEMP TOWNSHIP

A. FILES INDEX MAP (Map A – 1)

SEE MAP LEGENDS ON BACK COVER OF
ACCOMPANYING TEXT

SOTHMAN



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Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL DATA INVENTORY FOLIO 549

KEMP TOWNSHIP

B. EXPLORATION DATA MAP (Map B-1)

SEE MAP LEGENDS ON BACK COVER OF ACCOMPANYING TEXT